

CURRICULUM OVERVIEW

Blended Learning Library

Algebra II Resources



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Algebra II Resources Overview

The Blended Learning Library is a supplemental resource which may be used by teachers in conjunction with the subjects of Math 7, Math 8, Algebra I, Geometry, and Algebra II. They are not meant to serve as individual, stand-alone courses. These resources serve as a library of additional material to supplement the respective course should a teacher decide to use them.

Algebra II Resources	Unit 1: Set, Structure, and Function	
	Assignments	
	1. Course Overview 2. Picturing sets 3. Working with Sets 4. Relations and Functions: Definitions	5. Relations and Functions: Graphs 6. Algebraic Expressions: Exponents 7. Solving Multi-Step Equations 8. Working with Inequalities
Algebra II Resources	Unit 2: Numbers, Sentences, and Problems	
	Assignments	
	1. Equations with Parentheses 2. Graphing Solution Sets for Inequalities	3. Solving and Graphing Compound inequalities 4. Motion Problems
Algebra II Resources	Unit 3: Linear Equations and Inequalities	
	Assignments	
	1. Graphing Lines with Two Points 2. Writing Equations with Point Slope 3. Graphing Lines with Slope Intercept 4. Solving Systems by Graphing	5. Solutions by Addition 6. Solving Systems by Substitution 7. Graphing Two Variable Inequalities
Algebra II Resources	Unit 4: Polynomials	
	Assignments	
	1. Products and Factoring 2. Multiplying Polynomials by Polynomials 3. Special Products Part 1 4. Special Products Part 2 5. Identify and Factor Perfect Square Trinomials 6. Identify and Factor Sum and Difference of Cubes	7. Add and Subtract Polynomials by Identifying Like Terms 8. Synthetic Division 9. The Remainder Theorem 10. Using Numerical Relationships 11. Direct Variation 12. Inverse Variation
Algebra II Resources	Unit 5: Algebraic Fractions	
	Assignments	
	1. Dividing Algebraic Fractions 2. Adding and Subtracting Rational Expressions	3. Mixed Expressions and Complex Fractions 4. Equations with Fractions
Algebra II Resources	Unit 6: Real Numbers	
	Assignments	
	1. Real Numbers 2. Laws of Radicals 3. Conjugates 4. Radical Equations 5. Factoring Quadratic Equations 6. Completing the Square	7. Quadratic Formula 8. Sum and Product of Roots 9. The Discriminant 10. Fundamental Theorem of Algebra 11. Imaginary Numbers

Algebra II Resources	Unit 7: Quadratic Relations and Systems	
	Assignments	
	1. Circles 2. Ellipse 3. More ellipses 4. Parabola	5. Hyperbola 1 6. Systems of Equations 7. Solutions of Inequalities 8. Constant of Proportionality
Algebra II Resources	Unit 8: Functions	
	Assignments	
	1. Exponential Functions 2. Graphs of Piecewise functions 3. Exponential Equations 4. Logarithmic Functions 5. Evaluating Exponential functions with Logarithms 6. Properties of Logarithms	7. Solving Logarithmic Equations 8. Comparing Functions 9. Inverse Functions 10. Matrices 11. System Solutions with Matrices
Algebra II Resources	Unit 9: Counting Principles	
	Assignments	
	1. Factorials 2. Permutations 3. Combination Formula 4. Combinations Applications 5. Binomial Coefficients	6. Probability concepts 7. Equally likely outcomes 8. Multiplication Principle 9. Conditional Probability
Algebra II Resources	Unit 10: Trigonometry	
	Assignments	
	1. The Unit Circle 2. Reciprocal Functions 3. Radian Measure 4. Evaluating Trig Functions	5. The Pythagorean Identity 6. Graphs and Amplitude 7. Graphs and Modeling
Algebra II Resources	Unit 11: Statistics	
	Assignments	
	1. Sample Surveys 2. Normal Distributions	3. Experiments 4. Probability and Decisions